

FROM OUT OF 'THE ASHES' RISES

# >>>> ZXir QLive Alive! <<<<

## The Timex/Sinclair NorthAmerican User Groups Newsletter

Timex/Sinclair NorthAmerican User Groups

Auburn, Indiana

Volume I, Number 4

Winter 1991

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### T/SNUG CHAIRMEN

Here is the list of 1991 T/SNUG Chairmen and how to contact them. We wish to support the following SIGS: ZX80/ZX81, Z88, SPECTRUM/TS2068/TC2068 and QL. If you have questions about any of these fine machines contact the Chairman.

| POSITION      | NAME          | PHONE        | PRIMARY FUNCTION     |
|---------------|---------------|--------------|----------------------|
| Chairman      | Don Lambert   | 219-925-1372 | Chief Motivator      |
| Vice-Chairman | Dave Bennett  | 717-774-7531 | CATS/Z88             |
| Vice-Chairman | Al Feng       | 708-971-0495 | CATUG/QL Library     |
| Vice-Chairman | D.G. Smith    | 814-535-6998 | TAPE & JLO Library   |
| Vice-Chairman | Ed Snow       | 407-380-5124 | ZX81 TAPE Library    |
| Vice-Chairman | Rod Gowen     | 503-655-7484 | CCATS                |
| Vice-Chairman | Rod Humphreys | 604-931-5509 | VSUG/TS2068          |
| Vice-Chairman | Bob Swoger    | 708-837-7957 | Newsletter/BBS Sysop |
| Treasurer     | Abed Kahale   | 708-885-4337 | CATUG/Cash Tracker   |

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ZXir QLive Alive!

Volume I, Number 4

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Winter 1991

## T/SNUG Information

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ZXir QLive Alive! (pronounced Sir Clive Alive!) is the newsletter of T/SNUG, the Timex/Sinclair North American User Groups. We wish to represent all of the North American TIMEX/Sinclair user groups by providing news about all that is going on in the T/S community in at least four newsletters a year.

It is our goal to build a public domain software library and develop a list of available software for all T/S machines listing the source.

We shall try to keep vendors alive by offering free space in this newsletter. Vendors shall receive this newsletter free so that they may see that we are still out here. If you feel that T/SNUG should perform other tasks, let us know your feelings.

T/SNUG wishes to have one chairman from every T/S North American user group who will take charge of sending us your user groups newsletter and other correspondence.

If you desire to reprint any articles that appear here, please provide credit to the author and this newsletter.

Articles appearing in this newsletter can be obtained by downloading this newsletter from our BBS. We encourage your user group to copy this newsletter and distribute it at your regular meetings to all of your members.

For an annual contribution during the 1992 season of \$10.00 for individuals or user groups, you can keep T/SNUG alive! Send your contribution to:

**ABED KAHALE**  
ZXir QLive Alive! Newsletter  
335 W NEWPORT RD  
HOFFMAN ESTATES IL 60195

Tele: 708-885-4337

## ZXir QLive Alive! Article Contributions

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If you would like to contribute an article to the newsletter, upload a file to our BBS called TSNUG.ART. If you have an AD for the newsletter UPLOAD a file called TSNUG.ADS. If you have NEWS to POST about your group, UPLOAD a file called TSNUG.NWS.

If you need help contact the SYSOP by mail, E-MAIL on the T/SNUG BBS, or by phone:

**BOB SWOGER**  
613 PARKSIDE CIRCLE  
STREAMWOOD IL 60107-1647

It is preferred that you call:  
H708/837-7957 or W708/576-8068

If you can only contribute hard copy, tape or disk format, send your inputs to:

**DON LAMBERT**  
ZXir QLive Alive! Newsletter  
1301 KIBLINGER PL  
AUBURN IN 46706-3010

Tele: 219-925-1372

It is not necessary to call before sending articles.

## CONTRIBUTORS TO THIS ISSUE

-----  
**Bill Allen**  
**George Chambers**  
**Dave Bennett**  
**Bill Harmer**  
**Abed Kahale**  
**Don Lambert**  
**Bob Madaris**  
**Pete Paglia**  
**Hugh Scriven**  
**Bob Swoger, K9WVY**  
**Butch Weinberg**  
**Roy Wisti**

## FROM THE CHAIRMANS DISK

-----  
**!IMPORTANT RENEWAL NOTICE !**  
Please let me ask you all to look at the new renewal schedule near the bottom of the first column of page 2. This is no mistake, the contributions needed from one and all is \$10, not \$12 or \$15. As our user

groups have had to raise their rates to keep going, T/SNUG has been fortunate and we do not care to get FAT on excess funds! So for this 1992 season send only \$10 for your renewal.

By the time you read this Christmas will have come and gone and you will be into that terrible mess known as Income Tax. There are programs on income tax but I have not used any. I am caught in one of those insane deals that will require me to file three tax forms from now on (unless I move back to Iowa again). Why? My pension is based on wages earned in Iowa, therefore the pension is taxed in Iowa. Of course that portion of my income will not be taxed in Indiana. But it means another form to fill out. It could be worse and that would be no pension, so looking around I see that I am lucky to have an income.

Just the usual things have been happening, helping others find things for their computer hobby. I led one person to a 288, another to a replacement double sided full height 5.25" disk drive when his died and some others to software.

I used to buy bulk disks from MEI MICRO but I found another source that has good used disks. The price is right but they are used disks. Some have labels on them and some don't. If you need lots of 5.25" disks these are a good source. In comparison, when I FORMATED 7 MEI MICRO disks with the Oliger interface on my 80 track (quad) drive I had two failures and neither would FORMAT on the second pass. Using these used disks I had one failure out of 12 and a re-try FORMATED it successfully. For those of you that are unfamiliar with the Oliger disk interface, it FORMATS until there is an error and then the program halts. In contrast, the LarKen it will FORMAT the entire disk and if you aren't watching you would never know there was a glitch. [Unlike the Oliger, the disk is

quite usable on the LarKen system using either Chamber's doctor.B1 or the LarKen Disk Utility. Ed.] These are disks with sleeves and nothing else.

Paul Holmgren has them at 52310 Wilton Wood Ct., Indianapolis, IN 46254. The price for 100 disks is \$18.00 including shipping.

I recently decided to get a better printer to replace the Okidata 82A that I had been using. Nothing wrong with the Okidata if all you ever want to do is to do draft quality printing. My first choice for a replacement was a Citizen 200GX. It had lots of nice features and since the Citizen 120D works fine with the TS2068, I thought the Citizen 200GX would work also. All I could get out of it was condensed text and even that was garbled both in the format and also the letters. When I took it to a meeting of ISTUG Paul Holmgren could do no better. It seemed like a bit was stuck.

I took it back to the store and they hooked it up to their IBM compatible. It worked just fine! However, they were good enough to take it back after I bought a new ribbon for it. I should have been clued in on the Citizen 200GX since over half the manual was explaining the IBM word processors.

I got a list of 800 #s and tried to find a Citizen 120D but it was no longer available. So I drove down to Ft. Wayne (20 miles) and looked around. This time I looked for a printer that was not tied to Big Blue. After looking around I found two that might work. One was a Panasonic. If you used single sheet feed on it you had to remove the fan fold paper completely, on the other you didn't and I liked the looks of the other much more.

After I explained the experience I had just had with the Citizen, I was told that I could bring it back if it



didn't work. He also said that if it didn't work then no printer would work. While it was more money than the Panasonic I bought it.

It is an EPSON LV-810. The only problem I have had with it was forgetting to get out of the default mode (condensed print) on power up. And not only does it do single sheets but it also does envelopes. The envelopes when using NLQ really look nice. Another feature I like is the 4K buffer which is about a page of text and 200 cps draft quality is zipping right along.

I did have to extend the printer ribbon cable since the printer connector port is located differently than on the Okidata. I have not started to reset the dip switches, but I shall to get the slash in the zeros. When using Dohany's MSCRIPT with the Okidata 82A I could not get the demo program to print out with out some double letters and such since it could not backspace. But the EPSON produced all those fancy things that I never could even dream of doing. Now I will have to learn how to do all that good stuff!

How do you use your computer to make your daily living easier besides using a word processor to write letters? Well, about the time that I was tapped to be the editor of ZXir QLive Alive!, I started a disk that I labeled Diary-Log of Activity. On that I keep track of what I am doing mostly the T/S related mail that arrives and the mail that I send. I have learned to have the files by months. Guess I should have them by months and years since soon I will be into 1992. I started the file in April so it is a little while off. I use one disk to store my correspondence and I use a file name of month and day like 1218 and then the first six (or less) letters of the last name. (I am allowed 10 characters for a file name for the Oliger DOS.)

When I was working I had the

payroll savings plan for savings bonds. Now my oldest bonds bought for \$18.75 are now worth over \$130.00 each. I have a file that lists them by date and serial number and you can get a list from the bank that gives the current value of the bonds. At one time my wife laughed at the savings bonds now she is impressed at their total value. I also keep track of the C. D.s we have on one file and it lists the maturity date plus other important data.

All of the files are in MSCRIPT. Why didn't I use VU-FILE or PRO-FILE? Simple, I never figured out how to use them. I also have a file with the IRAs on it. Has Anybody out there got other good uses for the T/S computers in their daily life?

I have been asked why I like MSCRIPT word processor over TASWORD. With TASWORD I have to go back and pickup missing characters since it seems to accept input slower than MSCRIPT and it is a different rate for different characters or so it seems to me. [Does anyone else see this? I don't. Ed.] And the character set on the screen, to my eyes, seems to be easier to read with MSCRIPT. When it comes time to SAVE a file if you have added to an existing file you still have to give it a name with TASWORD and MSCRIPT asks you if you want to SAVE under the old file name. [Not true, Don. Read your LogiCall manual page 10. Ed] Then when you want to print out with TASWORD you can not change the left margin nor can you increase the text line from the 64 characters it is set up for. [Not true, Don. Go to the graphics section of the menu to set the left margin. Set up a graphics character to get as many as 128 characters per line. Ed.]

With MSCRIPT that is all in the PRINT menu [that's no different than going to the g menu in TASWORD. Ed.] and also it allows you to set page length and the number of lines to get



over the perforations. With MSCRIPT you can print out a lengthy document without worry. With TASWORD you have to run a page at a time and remember which line to start at and the line to end the page.

And the same questions come up on the use of disk drive interfaces. You got an Oliger, why do you mess with LarKen? You got a LarKen, why do you mess with an Oliger? To be really frank I can not say which is best. Both are good and both have nice features.

Which commands would you rather type in:

```
RAND USR 100: LOAD "filena.Ba"
      or
LOAD/ "10characte"?
```

[Would you rather be limited to RAM sized DATA files with no MERGE function or limitless DATA file size and a working MERGE function? Ed.]

Both have a menu load feature. Both are fast. Oliger tells you how many bytes are in the file on the directory screen. I have both in the marriage option and I use them both but I use the Oliger more in my day to day work with the computer. But if I had to choose one I would -- not want to give up either. The only thing that would be better would be an interface that had all the good features of both in it. [LogiCall for Oliger? Sure, why not? NOTE: Don uses Oliger and MSCRIPT while I use LarKen and TASWORD TWO. I prefer TASWORD over MSCRIPT not only because MSCRIPT often crashes when going back to the HOME menu and adds an unwanted blank line to the top of the script when entering the file, but because I prefer a text editor for newsletter work over a word processor as I hate to see text files with ragged right edges. Reader feedback shows they like the right justification provided only by TASWORD. Word processors seem to only right justify when they print. TASWORD is more like WYSIWYG, you don't have to

waste a lot of paper to see what the finished document is going to look like. Ed.]

Chairman Don. 0/0

That 0/0 means that is the end of that column or article. 0/0

Don Lambert, Chairman  
Timex/Sinclair NorthAmerican

## TREASURY NOTES

-----  
As of March 1, 1992 with \$762 from 6 groups and 44 individuals, with expenses of \$215.07, we have a balance of \$546.93

Please include your ZIP+4 code when you renew your membership. It will speed up the mailing. Thank you!

Abed Kahale, Treasurer  
Timex/Sinclair NorthAmerican  
Users Group

## INPUT/OUTPUT

-----  
Since T/SNUG's purpose is support the T/S community, I wish to relate to you how Abed Kahale and I came to be members of the Chicago Area Timex Users Group. I had an article in one of the now defunct Sinclair Magazines. It was read by CATUG member Butch Weinburg who invited me by phone to a CATUG meeting. Abed was looking to update his LarKen DOS and Larry Kenny gave me his name over the phone. I called Abed and invited him out to a meeting. For both of us it was like returning to civilization after being marooned on a desert island!

As you read INPUT/OUTPUT, look at the names and addresses. If someone is near your user group but not a member, look up his number in the phone book or call me and I will give it to you or you can write him. This is how to help those T/Sers who are alone out there, personal contact!

**Abed Kahale writes:**

MScript Crash:- If you poke or change anything, RUN to get the HELP menu and hit B for BACKUP before you do anything else. Otherwise when you go to TEXT and then try to get the HELP menu it will crash. I have customized my copy, one that seems to help by poking the keyclick duration; poke 35462,10.

Ok, Abed, I'll check it out.

**George Chambers writes:**

I have been writing major revisions of the OMNIBUS disk #2 and have sent copies out to several members to have them experiment with it... It has quite a few nice features about it...

Also I have been working on a number of printer drivers, and writing the first of several articles for the newsletter on the topic. That took quite a bit of time.

Our disk library is up to disk #44..... Members who might have an earlier catalogue should request an update.

George, thanks for the news and for that MSDOS disk reading program for the LarKen. It works just fine and will help me a great deal getting info from our QL users for our newsletters.

**Bill Harmer writes:**

Dear Donald, It was nice talking to you on the phone yesterday. I regret, however, raising a false alarm over the ZXir QLive Alive! newsletters. In fact, on examining my file (shoe of overflowing with) of newsletters, I found I had received both issue #1 and #2 and as I was talking to you, the letter carrier had delivered by mistake issue #3 to my next-door neighbor. That worked out well anyway, since he sent his son around to bring it and talk about Timex computers since his son had just got a used TS1000 a week or so ago and was trying to do things with it. I gave him a

demo of how to load a cassette on my TS1000 and he left with a cassette with a few with a few games on it and a book. Funny the way things happen. (The address on the mailing label was okay.) As for the confused filing system, I have put a number of the newsletters, including the ZXir QLive Alive! into nice Acco binders now, all in order. [This was the start of a nice letter from Bill Harmer of Canada. For those that have not heard of Bill, he is quite a writer pertaining to computers and especially the TS1000. He has written an unofficial ZX81 LarKen disk manual of around a hundred pages.]

**Roy Wisti writes:**

I have a TS2068 with OLIGER 3.5" drive, tell me I'm not alone!

ROY WISTI

135 SHELDON RD

VOLUNTOWN CT 06384

Your not, Roy. Steve Cooper in Chicago has a JLO! Most of the folks in Indiana use them, including Don Lambert! Larry Kenny was pleased, though, to hear that at the DMA ComputerFest in Ohio only Oliger systems were up for re-sale! Apparently no one wishes to part with LarKen. There are three LarKen systems in out Chicago group.

As for 3.5" drives, I know of only one other using that format with a TS2068.

**Pete Paglia writes:**

I have a Sinclair ZX81 with 64K Memotech RAM, enhanced keyboard and 300 baud Byte-Back modem. I also have a TS2068 with modem, printer, and Spectrum cartridge, along with a dozen old programs from Quicksilver and the like, for both machines. Both are in working order and excellent condition.

I am writing to invite you to make an offer on the whole kit and kaboodle, or send me your latest catalog.

**Peter Paglia**  
8802 Partridge Run  
Chapel Hill NC 27516

Pete, I have no catalog so I will send you all our 1991 newsletters.

**Hugh Scriven writes:**

I find it truly amazing that there are still several of you who are keeping the cult Alive! You have my gratitude and appreciation. Best Wishes from a former Cedar Rapiidian.

**HUGH SCRIVEN**  
235 E OXFORD ST  
CHULA VISTA CA 91911

Hugh, I don't see it as a cult. A cult is made up of folks with false beliefs. The T/S machines themselves have proven to us that there is still no better machine in the market place for our needs. Our needs include programming and I for one have found no better machine for that need and I am not alone in that feeling. I have a wife, a daughter and a cat and I have a real need to have at home something that does what I tell it! T/S users are not just appliance operators as are the BIG BLUE and APPLE users. What you have found here is a collection of people that wish to help each other grow in the knowledge of what more these machines can do for them.

**Bill Allen writes:**

I am a lone Sinclair Spectrum user just returned to Austin after many years in Algeria with my TIMEX and Sinclair computers.

**BILL ALLEN**  
7121 WISHING WELL DR  
AUSTIN TX 78745

Bill, you're not alone. Many of us TS2068ers have Spectrum ROMS and Spectrum software. Stay in touch and you'll see.

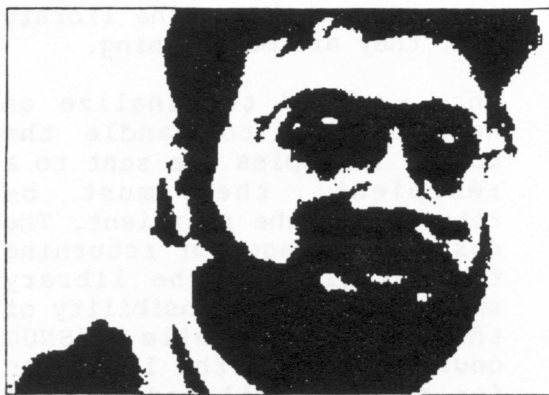
**Bob Madaris writes:**

I found out about T/SNUG from a Bill Ferrebee article in Computer Monthly Magazine. I am 63 and retired.

I have used all the T/S computers up through the QL. I like Quill just fine. This QL has a 256K Trump Card for which I purchased Drams to bring it up to full capacity. I have dual 3.5" floppy drives, a Magnavox RGB 80 Monitor and a Sears SR2000 printer.

**BOB MADARIS**  
ROUTE 1 BOX 1497  
TRAFFORD AL 35172

## NEWS ITEMS



**JAY SIEGEL**  
**F D D EXPRESS**

Jay Siegle of FDD Express newsletter fame has gotten married. I'll bet he will really have trouble making deadlines now! Congradulations, Jay, and best wishes from all your friends in the Sinclair community.

Jay Shepard, Abed Kahale, Don Lambert and Bob Swoger are now ON-LINE with modems and XMODEM capability. LarKen's MaxCom will be the next hurtle.

\*\*\*\*\*  
**XXir @Live Alive!**  
**Renewal Time**  
**\$10.00 for ALL!**  
\*\*\*\*\*



## LIBRARY

\*\*\*\*\*  
TIMEX/SINCLAIR  
PUBLIC DOMAIN LIBRARY  
AVAILABLE NOW!  
\*\*\*\*\*

The T/SNUG public domain library is well under way. We shall set up libraries for each segment of the T/S community. To insure the longevity of the libraries, we shall use either a user group or a pair of individuals to maintain these libraries. In the case of a pair of individuals, these two shall keep each other updated. They will ship out only copies so as to not loose the library that they are maintaining.

What we need to finalize on here is how to handle the costs. If copies are sent to a recipient, they must be returned by the recipient. The cost of postage for returning the material to the library should be the responsibility of the recipient while T/SNUG could reimburse the librarian for cost of mail and cost of material loss. If others feel this is not the way to handle it, let us know.

At present Bob Swoger and Jay Shepard of CATUG have the Larken TS2068 Library started by Vista, CATS and ISTUG. We hope to publish the list in the next ZQA issue.

D.G. Smith of Pennsylvania has the TS2068 and JLO Library.

Ed Snow has the TS1000 tape Library.

Al Feng of CATUG has the QL library but wishes to hand it off as CATUG is already handling the Larken library. How about Boston or CATS?

Don Lambert will watch over the various libraries and maintain the current software availability lists including commercial software lists.

## ARTICLES

### CASSETTE LOAD/SAVE ROUTINE AND PROBLEMS FOR THE ZX81 PART 3

Compiled by Donald S. Lambert.

SYNCHRO-SETTE VOL. 2 #4

APRIL 1983

### OVERCOMING CASSETTE LOADING AND SAVING Problems.

One of the most common is that an individual orders a tape from an outside source, whether it be from us or some other Software House, and can't load it into the computer. The identical phrase is used by almost all of these people:

"This tape won't load at all. None of the programs on wither side can be loaded into the computer. I know it's not my tape recorder because I can save and load programs I enter myself and work just fine."

Well, I have discovered that, in many cases, it is the tape recorder that is the culprit. "How can this be", you say? Simple; the RECORDING HEAD IS OUT OF ALIGNMENT. The head is saving the program off track and when it is reloaded it is reloaded off track. Programs that are saved with professional recording equipment record the pulses in proper track alignment - - most of the time.

This problem of the head being out of alignment is a lot more common than I thought. Sometimes it can be corrected by an adjustment, as outlined in the owner's manual. On the CTR recorders I have, there is no adjustment that I am aware of and I have to take the recorders to a service center.

If you feel your recorder might be recording off - track use another recorder (borrow a friend's if necessary). Try loading programs you made yourself and then the commercially prepared programs.

However, if the problem cause isn't the recorder, disconnect the EAR plug from the recorder jack and listen to the program pulses. Try to hear any of the following:

**-DROPOUTS -**

These are sudden drops in volume that can cause the program to bomb, the result usually being the return of the (K) cursor. They may be caused by the tape becoming stretched. If there is a lack of magnetic particles in any part of the tape, dropouts can occur. Demagnetizing the tape with a bulk eraser before recording on it can sometimes help. Dropouts can sometimes be overcome by increasing the volume adjustment of the recorder. A trick I have used, that sometimes works is to locate the dropout location by noting the position of the number counter. I load the tape again and when the tape approaches that position, I increase the volume on the recorder and then decrease it when that position is safely passed.

**-WAVERING-**

This is the effect where the volume of the sound pulse pattern keeps cycling from high to low in a constant manner. At the high point the program might blow. At the low point, data might be lost to the computer. Volume adjustment sometimes overcomes this effect but in extreme cases, nothing helps except if a device, such as the Winky Board (G. Russell Electronics) is used. This problem is caused by either a bad recorder or a bad tape.

**-DISTORTION-**

Extra noise on the tape interferes with the computer's ability to identify the program pulses. This may be leftover strong pulses if the program was recorded over an old program. Again, de-magnetizing or a device like the Winky Board can help.

**- UNEVEN PULSE RATES -**

This can usually be traced to a problem with the recorder's drive mechanism. The belts may be slipping or the motor maybe binding. Consult the recorder manual for proper lubrication

and cleaning procedures. If belts receive a coating of lubricant, all sorts of problems can arise. Belts can enlarge as they get old and may have to be replaced. Sometimes they just keep falling off the drive wheels.

**-EXTREMELY HIGH VOLUME-**

The result of this is usually the screen going blank with no cursor. This is usually easy to remedy just by turning down the volume except if there is some other kind of distortion, also.

Sometimes, the head of the recorder itself becomes magnetized or dirty. It is usually a simple procedure to clean or demagnetize the recorder head. Most vendors of cassette recorders sell tape cleaning and demagnetizing devices. \*\*If you have trouble SAVEing programs, I might suggest:

**-MAKE SURE THE PROGRAM IS NEVER SAVED AT THE BEGINNING OF THE TAPE.** You have no idea how many times people have tried to save a program before advancing the tape beyond the leader. All tapes (except leaderless tapes) have a segment at the beginning and end made of a plastic material that have no magnetic particles in it. These segments are designed to affix the magnetic tape to the two spools. They cannot hold the data themselves.

- Disconnect the plug from the recorder EAR jack while recording. The recorder may pick up unwanted noise from the computer through this circuit.

- Use quality cassettes. They don't have to be expensive and some expensive tapes as less suited for storing computer pulses.

- Run the recorder on batteries instead of AC. The AC power source into the recorder may introduce voltage spikes or hum that shows up as distortion in the recorded program pulses. Some recorders may have a problem keeping the drive motor operating at a constant RPM

when on DC current so make sure the batteries are fresh.

- Find out if there is an extreme amount of noise that accompanies the program when the RAMPak is attached and a program is saved, as compared to saving a program with the RAMPak un-attached. If there is more noise, consider obtaining another RAMPak. Our experience has shown the Memotech RAMPak to be less noise - producing than most.

- In extreme cases, run the computer on batteries when saving a program. This involves building a power supply with batteries. Make sure that the proper polarity is observed. The power plug tip should be positive that comes from the battery pack and goes into the computer. IMPROPER POLARITY CAN CAUSE DAMAGE TO THE COMPUTER. If you have any doubts, ask someone who has some expertise in this area. I built such a device with NiCad rechargeable batteries inside a metal case with an input jack for the computer's power supply which is used to charge the batteries - on/off switch, output plug on a two wire cord for the computer and DC meter to check the power status of the batteries. The whole thing cost me less than \$30.00 and I bought all the parts from Radio Shack.

**\*\*If you have trouble LOADING programs:**

- Disconnect the plug from the recorder MIC jack while loading.

- If the recorder has a treble/bass adjustment, the treble should be at maximum level and bass at minimum.

- If the recorder has a high/low switch it should be at high.

- The volume adjustment, if set at 75% maximum, is usually the best setting.

- Run the recorder on

batteries.

I don't suggest you try all these things at once but one at a time until whatever problem you have is overcome.

### **CLEAN SCREENS PLEASE!**

by  
Bob Swoger

While working on the T/SNUG public domain LarKen Library, I noticed numbers 'FLASHING' on the screen! I had seen this problem in years past when I was learning LKDOS. I believe I was misled by some documentation I got from Larry Kenny himself but I was also corrected by Larry.

One way the problem manifests itself is in the statement:

**PRINT USR 100: GOTO 0**

This instruction sets the drive pointer in a LarKen system to DRIVE 0. Let us consider for a moment the instruction:

**LET a=USR 100**

This would assign some number left in some register to the variable 'a' after the machine code at location 100 was run.

When the instruction **PRINT USR 100: GOTO 0** is executed, our computer, which just loves to do whatever we ask, prints a '0' on the screen!

Why am I bothered by this you ask? When trying to copy P.D. software with screen saves from one disk to another, you type in something like this:

**PRINT USE 100: LOAD "name.C\$"  
SCREEN: PAUSE 0: PRINT USR 100:  
GOTO 0:PRINT USR 100: SAVE  
"name.C\$" SCREEN**

This leaves two '0's imbedded in the picture somewhere!

### **DIRTY PICTURES!**

The correct command to issue instead of **PRINT USR 100:** is:



## RANDOMIZE USR 100:

RANDOMIZE does nothing with the the result left in the register after running the machine code.

Therefore, to copy clean screens from one disk to another, LOAD the screen file, put in a PAUSE if you wish to SAVE it using one disk drive, add the GOTO 0 if you are using two drives, then do the SAVE using RANDOMIZE as shown below:

```
RANDOMIZE USR 100: LOAD
"name.C$"SCREEN: PAUSE 0:
RANDOMIZE USR 100: GOTO 0:
RANDOMIZE USR 100: SAVE
"name.C$" SCREEN
```

## A Short History of the Z88

by  
Dave Bennett

Those of you who do not own Z88s and some of you who do are probably not aware of the latest news events about Sinclair. (Cambridge)

Most of this article is compiled from News events appearing in Z88 FAX News and Z88 EPROM. Z88 FAX News was an American publication printed on FAX paper in a Newspaper style format. Z88 EPROM is the Newsletter published by The Z88 Users' Club in the United Kingdom. The Club has a worldwide membership. Z88 EPROM is available from Sharp's if you buy the 'Z88 Newsletter'.

The story starts out in 1986 with Sinclair Research, LTD. Sinclair is short of cash. So a deal is worked out with Amstrad Computers. Amstrad is a chief rival. Amstrad get the rights to the existing computer range (QL and Spectrum) plus the right to use the name Sinclair. Sinclair get 5 million pounds. Amstrad market the Spectrum as a game machine. They try to kill off the QL presumably because it competed with their own machines. The QL survives anyway due to support from numerous third party companies.

From the money made in the deal

Clive Sinclair forms a new company. Cambridge Computer, Ltd.

The first product is a laptop computer called the Z88. It was first launched in June 1987 with an official launch for the UK retail market in September 1987. The price is £249.95.

The Z88 is a Z80 based laptop with an 8 line by 106 column screen, 32K RAM built-in, a built-in serial port and a conductive rubber keyboard. It weighs less than two pounds. There are three expansion ports for extra RAM and a built-in EPROM burner in slot three. There is a task-switching operating system which can access more than 64K at a time due to bank switching which is completely transparent to the user.

Back to the History ...

December 1987 Messages about the Z88 first appear on the GENie Information Service.

Spring 1988 Cambridge Computer LTD. show a prototype 512K RAM card. The Official Z88 carrying case is launched. It is black padded Pvc with a nylon zipper around the sides. There are six pockets for extra batteries or additional RAM and EPROM cartridges. MacLink is introduced. The official modem is introduced. It is the Datatronics 1200P. This is a pocket sized 1200/300 baud unit.

Summer 1988 CCL appoints National UK distributors. The 512K RAM is available in small quantities.

Cambridge Computer signs a deal worth \$7.1 million with Diversified Foods for distribution in the USA. There is an initial 13000 Z88's. The expansion port on the side is phased out. Cambridge is worried about Z88's failing from peripherals being plugged in and out. The Z88 is never off. Just the display is turned off. The official modem is

being shipped. 128K and 512K RAMs are being delivered after a shortage.

Winter 1988 Z88 now has official distribution in Italy, France Belgium, Austria, Switzerland, Denmark, Sweden, Norway, Finland and Turkey.

Wordmongers has a deal with Diversified Foods to distribute 1000 copies of zBASE to North America. Non-sale of EPROM software is rumored to be one reason for Diversified's later demise in the Z88 Market.

Cambridge Computer comes out with a TV Satellite receiver priced at under £250. It is square and just under two feet (60 cm) across. There is a more powerful satellite available in Europe hence the smaller and less expensive dish. Amstrad, Sinclair's old rival is also producing a receiver system. In January 1989 the Astra satellite is launched.

December 1988 Z88 BBS in Los Angeles is started.

Cambridge Computer markets Xmas Pack with Z88, 128K RAM, carrying case and AC Adapter for £299.95.

January 1989 Cambridge decides to sell Developers Notes which is a good move guaranteed to increase third party software on the market. Spring 1989 Comets and Dixons, two large UK retailers decide to no longer sell the Z88. There still are quite a few dealers of the machine in the UK. A list appeared in Z88 EPROM. Cambridge reduces the price of the Z88 to £199.95.

Three different disk drives are introduced. Two of these are based on the Tandy portable 200K disk drive which was originally developed for the Tandy Model 100 portable computer. One of these systems was developed in the US by PCIC and the other was developed in the UK by XOB. There is a third drive by Ranger which formats to 720K and the disks are PC

compatible. It is quite expensive at £450 and is intended for the corporate market.

Cambridge Computer announces a 45 cm satellite dish. The Astra Satellite was more efficient than expected. They are coming out with two models of receivers. One has stereo and remote control. The other has a six watts per channel audio amplifier.

August 1989 ZED-88 BBS in Suburban Washington D.C. is started. 703-968-9438

January 1990 Z88 FAX News is started in the US. It is published by Curtis Claar. ZFN has two or three 8 1/2 by 11 Newspaper style pages sent by FAX machine or by regular mail if you don't have access to a FAX machine.

A new organization appears in the US. The Cambridge Group targets college students, selling Z88's through sales reps.

February 1990 Cambridge Computer have a one per pupil order of Z88s from Macmillan City Technology College covering an initial 200 computers. The students are 11 year olds.

Cambridge North America, the US distributor (Diversified Foods) is reported to be on the verge of bankruptcy. They reportedly owe \$1 million to Cambridge Computer Ltd. They file Chapter 11 for protection but still remain in business.

March 1990 Pipeline stops publishing after two issues. Pipeline was a Z88 publication put out by Time Designs Magazine. When TDM went belly-up Pipeline did too!

April 1990 Larger RAMs up to 1 Megabyte, larger EPROMs and larger internal RAMs to replace the usual 32K :RAM.0 are developed by MACroSystems, ETC. in the USA. These are also available from Sharp's which is

a long time Z88 dealer.

Vision 100 is introduced from Ranger Computers Ltd. This program provides VT100 terminal emulation. This gives you the ability to display graphics from some online systems. It is priced at £175.00.

June 1990 Cambridge Computer Ltd. announce support of the Environmental Education Charity Living Earth. They donated five Z88s for use in the UK and in West Africa.

The New Zealand Ministry of Agriculture and Fisheries use the Z88. The Z88 is used in a special case as a display unit for motion compensated scales. These are used to weigh fish accurately at sea. The scales provide the true weight of the fish regardless of the pitch and roll of the ship.

Cambridge North America calls it quits on June 1st. Despite some later rumors of CNA still being in business, it really is gone. Its 800 number is sold to the Cambridge Group. ERI gets CNA's inventory and customer list. ERI sells products for the Macintosh.

August 1990 Cambridge Computer Ltd. was unable to purchase the required number of Z88's from SCI Ltd. who manufacture the machine in Scotland. So an agreement was reached with SCI. Cambridge gets some much needed funds in exchange for Sir Clive Sinclair's controlling interest. He resigns as Chairman and no longer runs day to day business of the company. He does remain a shareholder. Also Cambridge moves their headquarters to Irvine, Scotland where the Z88 is manufactured. Cambridge was developing a PC Compatible laptop. This will no longer be developed. Sir Clive may develop this machine separate from Cambridge. CCL are interested in developing an improved Z88 at the same price level. They will also continue marketing the satellite receivers.

There continue to be UK Z88 workshops scheduled twice a year by the Z88 Users' Club. UK Z88 companies are present and there are seminars on various topics. One Hundred members attend the latest workshop. Five people from Cambridge Computer attend including Jim Westwood who was a member of the Z88 design team.

February 1991 Z88 BBS is Los Angeles closes down due to interest by the Sysop in other areas.

May 1991 The Z88 Users' Club have an improved relationship with the new Scottish Cambridge Computer. Customer Support is greatly improved.

A 256K EPROM and a 1 Meg RAM are announced from EFS Ltd. EFS make all the the RAM and EPROM cartridges sold under the Cambridge label. The prices are said to be only marginally more expensive than the current Cambridge 128K EPROM and 512K RAMs.

That's all the News I have for now. But I am sure there will be more developments. The Z88 has been on the market for four years. That is longer than many other machines. Even though there are more powerful laptop computers, the Z88's longevity is a testament to it's innovative well thought out design.

#### TRANSFERRING MSDOS FILES TO THE TS2068

by  
George Chambers

Recently I was given an MSDOS disk by Bill Harmer, of Ottawa, to see what I could do with it. This article describes my experience with transferring this and subsequent MSDOS files to the TS2068 using the Larken LKDOS.

When I first received the disk I found that the Larken disk system, as I expected, would not touch it; instead it reported CRC errors. I then



went at it with the "doctor.B1" utility (to be found on our club library disk #1.) I found, to my delight, that although the LKDOS reported a CRC error, the selected track had in fact been loaded into the computer. A good start.

I inspected the data and found that it was a text file and that it continued, without a break, for 4608 bytes. Where the Larken holds 5090 bytes of data per track the MSDOS disk held 4608 ( $256 \times 18 = 4608$ ) bytes. It also appeared that on this disk the data was not broken up into separate sectors. Or if there were sectors, the sectors were contiguous and the text files uninterrupted.

Since it seemed likely that the only useful data on an MSDOS disk would be text files, the thought was to create a file suitable for a word-processing program. Two WP programs came to mind, TASWORD and Mscript. After some experimentation Mscript was selected. This was primarily because Mscript appeared to be more amenable to editing of the raw material.

The "track-loading" function of "doctor.B1" was extracted to become the "heart" of a new program called "MSDOS.Bx". Mscript can handle files of 16301 bytes. To make optimum use of Mscript it seemed appropriate that the new files be designed to hold the data from three tracks ( $3 \times 4608 = 13824$ ).

The new program was arranged to load three successive tracks. After loading the first track the 4608 bytes of data, initially loaded at starting address 45000, were transferred via a m/c LDIR routine to starting address 51200. When the second track was loaded, it's data was transferred so it was above, and contiguous to the initial block of data. Same for the third track. We now had a continuous block of 13824 bytes of data starting at address 51200.

This block of data was then saved by a simple LKDOS SAVE routine to a disk in a second drive on the system. Then the

cycle was repeated, with the next three tracks of the MSDOS disk being saved in the same manner. This process would continue automatically and without interruption until the whole disk had been copied out.

Now, there were complications of course. First, it was found that these files, though of ASCII text, often contained "nulls", that is to say zero (0) values. Mscript, when it encounters a null, takes this to mean "end-of-data", and for all intents and purposes that's it; Mscript says that's all the data in that file. Initially, a Basic FOR/NEXT routine was used to go through the text file, replacing all the nulls with a value of 32 (a space character). This was successful, but it took what seemed like forever to work through 13824 bytes of an Mscript file.

A m/c routine was then developed to do this task while the data was still in the computer, before it had been saved as a Mscript file. The Basic part of the program was modified to allow the user to designate the value to be searched for, and it's replacement. The program was later expanded to allow as many such changes to be made as desired. This "search and replace" routine, being in m/c, took probably less than a second to complete.

It was found useful to remove all values of 10 (Carriage Return) as well; this made editing the Mscript file easier. In practice these seem to be the only two values that are usefully removed.

Another complication was encountered. The first disk was double-sided, so the program was written to read all 79 tracks (Track 0 was not looked at, it being presumed to have no text on it). However the next disk turned out to be single-sided. The effect on the files was a repetition of data. Where an attempt to load an odd-numbered track was made, no fresh data was loaded into the computer; the data from the

previous track being captured a second time. The program was modified to cope with this, by having the user indicate disk type.

Now, each Mscript file that was being saved needed a unique name. This was handled by fixing the 6th character of the Larken file name as "A" for the first file, and incriminating it to the next letter of the alphabet with each successive SAVE. This gave 26 files before one ran into "odd" characters such as "]", etc., and was adequate to handle all the tracks on a DSDD disk (3\*26=78).

Sometimes it would not be known whether a DS or SS disk was being worked on. Also, in many cases only a small number of the tracks on a disk had any data on them. It was desirable to provide a means of inspecting individual tracks on the disk to obtain this information. A routine was incorporated in the Basic program which would load a selected track, and display the contents on screen in ASCII character form. Where non-ASCII data was encountered an asterisk (\*) would be printed. This gave some indication of the extent of non-text material the tracks contained.

It should be kept in mind that although the material has been transferred successfully into an Mscript file, it still needs considerable effort to edit it. Probably the majority of text files in MSDOS disks are 80-characters-per-line, with a CR (Carriage Return) character at the end of each line, which must be edited out to make the text useful. Nevertheless, this effort would be considerably less than that required to re-type such material from a printout.

As a matter of interest a QL disk was also checked, using this program. It was found that while the QL disk could be loaded in the same manner, that the data on a track was present in blocks (sectors?) which were not contiguous. That is to say the individual blocks of data (maybe 256 bytes per block) had

not been saved consecutively along the track. Thus it seemed hardly worthwhile pursuing this aspect. [CATUG transfers QL files such as secretary reports and QL articles on MSDOS formatted disks to LarKen disk using this program and a hard copy print out of the required document and a little TASWORD editing. Ed.]

#### MSDOS.Bx

```

100 REM  A utility to move
        MSDOS text files
        to the
        Larken LKDOS (TS2068)

110 REM  Written and placed
        the public domain by

120 REM  G. Chambers
        14 Richome Court
        Scarborough, Ont.
        CANADA M1K 2Y1

130 REM  For version 3 LKDOS

140 REM  For use with Larken and
        MSDOS DSDD (360K) disks

150 REM  RANDOMIZE USR 100: OPEN
#4,"dd"
160 LET h=VAL "100": LET oo=0:
LET oa=1: LET ob=2: LET oc=3: LE
T od=4: LET oe=5: LET of=6: LET
og=7: LET oh=8
170 BORDER oa: PAPER oa: CLS
180 ON ERR RESET : CLS : GO SUB
1000
210 PRINT AT 12,3;"Wait a momen
t...."
220 RESTORE 250
230 FOR n=44000 TO 44160: READ
a: POKE n,a: NEXT n
240 PRINT AT 12,3;"
"
250 DATA 195,249,171,195,7,172,
195,27,172,195
260 DATA 56,172,195,75,172,243,
205,98,0,201
270 DATA 58,100,0,251,201,205,2
39,171,58,124
280 DATA 171,50,29,32,205,126,0
,24,237,205
290 DATA 239,171,58,124,171,50,
29,32,205,129
300 DATA 0,58,29,32,50,124,171,
24,217,205
310 DATA 239,171,175,50,32,32,2
05,123,0,58
320 DATA 32,32,79,6,0,33,112,32
,17,200
330 DATA 175,1,0,20,237,176,24,
188,205,239

```

```

340 DATA 171,33,200,175,17,112,
32,1,0,20
350 DATA 237,176,205,120,0,24,1
69,205,239,171
360 DATA 42,144,171,78,35,70,24
,158,0,0
370 DATA 33,200,175,17,0,200,1,
0,18,237,176,201,0,0,0
380 DATA 22,0,30,0,33,254,199,3
5,126,1,0,254
390 DATA 167,237,66,9,208,186,3
2,243,115,24,240,0,0,0,0
410 LET settrack=VAL "44000"
420 LET nexttrack=VAL "44003"
430 LET load=VAL "44006"
440 LET save=VAL "44009"
450 LET track=VAL "43900"
460 LET drive=VAL "43301"
470 REM LET buffer=VAL "50000":
LET bufflenh=VAL "5120": LET l
astcell=VAL "3571": LET diskname
=4483
480 POKE drive,ob
490 LET treg=VAL "18"
500 INPUT "Orig. Drive (MSDOS)
";orig
505 INPUT "1)Side or 2)Sides to
Disk";q:
507 ON ERR RESET : POKE 23658,8
: INPUT "Inspect MSDOS disk? ";y
$: IF y$<>"Y" AND y$<>"N" THEN G
O TO 507
508 IF y$="Y" THEN GO SUB 860:
GO TO 507
510 INPUT "Dest. Drive (Larken)
";dest
520 INPUT "Name for Mscript Fil
e(max 5) ";a$: IF LEN a$>5 THEN
LET a$=a$( TO 5)
530 LET a=64: LET m$=""
550 LET count=oa: INPUT "Start
transfer at track No.? ";count
560 INPUT "Ending at which trac
k #? ";end
570 INPUT "Modify File? ";y$: I
F y$="N" OR y$="n" THEN GO TO 59
0
580 GO SUB 910
590 PRINT AT VAL "21",og;"(Pres
s M to stop program)": PRINT AT
oc,oo
595 LET step=3: IF q=1 THEN LET
step=6
600 FOR t=count TO end STEP ste
p
610 RANDOMIZE USR 100: GO TO or
ig
620 POKE track,t: RANDOMIZE USR
settrack
630 LET move=200
640 CLS : PRINT AT 3,1;"MSDOS t
o Larken File Converter"
650 FOR w=1 TO 3
660 IF INKEY$<>" " THEN LET m$=I
NKEY$

```

```

670 RANDOMIZE USR load
680 RANDOMIZE USR nexttrack
685 IF q=1 THEN PAUSE 6: RANDOM
IZE USR nexttrack
690 POKE 44125,move: LET move=m
ove+18: REM Relocating data
700 RANDOMIZE USR 44120
710 NEXT w
720 RANDOMIZE USR 100: GO TO de
st
730 FOR n=1 TO change
740 POKE 44136,d(n): POKE 44138
,e(n)
750 RANDOMIZE USR 44135: REM
Modify selected numbers in the
textfile: i.e. nulls and/or CR's
from the text file before saving
it to an Mscript file.
760 NEXT n
770 IF m$="m" THEN STOP
780 LET a=a+1: LET b$=CHR$ a: L
ET c$=a$+b$+"."Cm"
790 PRINT AT 19,3;"Saving... ";
c$
800 RANDOMIZE USR 100: SAVE c$C
ODE 51200,13824
810 NEXT t
820 PRINT AT 21,oo;" Last track
-Press key to stop": PAUSE oo
830 STOP
860 INPUT "Inspect which track?
";count
865 RANDOMIZE USR h: GO TO orig
870 POKE track, count: PAUSE 6:
PRINT USR settrack: PAUSE 6: PR
INT USR load
880 ON ERR GO TO 507: CLS : PRI
NT FLASH 1;"Scanning track"; FLA
SH 0: FOR N=45000 TO 49608: IF P
EEK n>31 AND PEEK n<126 THEN PRI
NT CHR$ PEEK n;: GO TO 890
882 REM PRINT "***";
890 NEXT n
900 RETURN
910 INPUT "Number of changes to
be made ";change
920 DIM d(change): DIM e(change
)
930 FOR n=1 TO change
940 INPUT "Remove which No.? ";
d(n)
950 INPUT "Replace with No.? ";
e(n)
960 NEXT n
970 RETURN
1000 PRINT AT ob,oc; INK ob; PAP
ER og;" LARKEN DISK UTILITY v1.4
";AT od,oc; INK og; PAPER ob;"
MSDOS to LKDOS Converter ";AT of
,od;" 1990 George Chambers "
1010 INK og: PLOT oo,VAL "108":
DRAW oo,VAL "62": DRAW VAL "255"
,oo: DRAW oo,VAL "-62": DRAW VAL
"-255",oo
1020 INK og: PLOT oh,VAL "114":

```





INTEGRATED ACCOUNTS (on 3 mdv)  
 .....\$45  
 %%%%%%%%%%%%%%  
 %  
 % ALL ABOVE ITEMS: \$250 %  
 %  
 %%%%%%%%%%%%%%  
 %  
 % ALL PRICES NEGOTIABLE %  
 %  
 %%%%%%%%%%%%%%  
 CALL: Al Feng H(708) 971-0495

WANTED: ON 911122  
 %%%%%%%%%%%%%%  
 Trump Card or other memory  
 expansion and/or disk inter-  
 face for the QL.  
 D. G. Smith, R.415 Stone St.,  
 Johnstown, PA 15906.

FOR SALE: ON 911025  
 %%%%%%%%%%%%%%  
 FOR SALE: TIMEX 2068, excellent  
 condition, \$65.00. Oliger disk  
 interface, controller and  
 expansion board with manual,  
 \$11.00. Both for \$165.00.  
 D. G. Smith, R.415 Stone St.,  
 Johnstown, PA 15906.

FOR SALE: ON 911025  
 %%%%%%%%%%%%%%  
 I have a Sinclair ZX81 with  
 64K Memotech RAM, enhanced  
 keyboard and 300 baud Byte-Back  
 modem. I also have a TS2068  
 with modem, printer, and  
 Spectrum cartridge, along with  
 a dozen old programs from  
 Quicksilver and the like, for  
 both machines. Both are in  
 working order and excellent  
 condition. Make an offer on the  
 whole kit and kaboodle.

Peter Paglia  
 8802 Partridge Run  
 Chapel Hill NC 27516

FOR SALE: ON 911015  
 %%%%%%%%%%%%%%  
 QL Complete System .....\$80  
 Gold Card for the QL ..... \$500  
 Call Frank Davis H317-473-8031

FOR SALE: ON 911015  
 %%%%%%%%%%%%%%  
 For the AMIGA 500:  
 Plattinum Scribble..... \$40  
 Deluxe Paint..... \$25  
 Walt Armstrong H407-433-8822

FOR SALE: ON 911010  
 %%%%%%%%%%%%%%

CoCo 1 W/64K AND PRO KYBRD . \$20  
 J&M Controller .....\$65  
 Dual TEAC Disk Drives .....\$80  
 Joysticks .....\$10  
 The whole package with software  
 and manuals: .....\$125  
 CALL TONY SOKOL H708-428-4058

FOR SALE  
 %%%%%%%%%%%%%%  
 Commodore 64 computer with some  
 software, Commodore 1541  
 single-sided drive. Package  
 deal-all of above for \$40 or  
 best offer. Dottie Danca  
 708-837-6333 after 5 P.M.

FOR SALE  
 %%%%%%%%%%%%%%  
 Atari 800 computer w/software,  
 Atari 410 tape cassette, Atari  
 810 single-sided drive, & Atari  
 1050 single-sided drive.  
 Package deal-all of above for  
 \$65 or best offer. Dottie Danca  
 708-837-6333 after 5 P.M.

FOR SALE: ON 910912  
 %%%%%%%%%%%%%%  
 4 - 256K 80 nS SIMMS IBM TYPE  
 1 MEGABYTE TOTAL  
 \$15/ea or \$50 for all 4  
 Call MIKE WARNS  
 W708-982-2107 H708-627-9561

FOR SALE: ON 910426  
 %%%%%%%%%%%%%%  
 COLOR COMPUTER 3 - DISK DRIVE  
 CM-8 COLOR MONITOR W/PLATFORM  
 SMITH CORONA TP-1 PRINTER  
 JOYSTICK AND 1 DOZ BLANK DISKS  
 SOFTWARE INCLUDES DESK MATE  
 HOME PUBLISHER \$400 OR BEST  
 312-337-3624

## ZX-91 10 YEARS LATER

A real nice surprise came at us  
 recently, a new ZX-81  
 newsletter from Andre Baune of  
 Quebec Canada. With other  
 newsletters dying, Andre comes  
 on the scene with fresh and  
 attractive ideas! WHAT A  
 PLEASURE! We present this  
 newsletter to you all and hope  
 to use this work of Andre's to  
 fill our void in the ZX80,  
 ZX81, TS1000 and TS1500 world!  
 KEEP THEM COMING ANDRE, WE ALL  
 NEED IT AND LOVE IT!

1991 T/SNUG SUPPORTERS

ROBERT CURNUTT  
10400 TRUXTON RD  
ADELPHI MD 20783

IKE WALKER  
100 SW GOLFVIEW TERRACE APT 119  
BOYTON BEACH FL 33426-4654

RUTH FEGLEY  
6000 IVYDENE TERRACE APT E-1  
BALTIMORE MD 21209

JOAN KEALY  
PO BOX 1118  
BRACKETTVILLE TX 78832-1118

LARRY ANDERSON  
6203 WESTERN AVE  
DAVENPORT IA 52806

IVAN ZACHEV  
4859 ELMWOOD ST  
MUSKEGON MI 49441

JOHN J SHEPARD  
281 - 130th ST  
OGDEN IA 50212

GILLIAM PARRISH  
RT 1 BOX 705  
BEGGS OK 74421

ROY WISTI  
135 SHELDON RD  
VOLUNTOWN CT 06384

EDWIN N PHILLIPS  
540 MARILEA CT  
ORANGE CITY FL 32763

HUGH H HOWIE  
586 ONEIDA DR  
BURLINGTON ONT CANADA L7T 3V3

JAMES WILSON  
100 PORTAGE LAKE DR  
AKRON OH 44319-2304

ROBERT GILDER  
69 JEFFERSON PL  
MASSAPEQUA NY 11758

RALPH SLISZ  
PO BOX 11325  
SOUTH BEND IN 46634

ROBERT ARNOLD WEEKS  
PO BOX 651407  
MIAMI FL 33265

MEL E LAVERNE  
103 ENDICOTT LN  
OAK RIDGE TN 37830

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4040 W PEORIA AVE APT 2091  
PHOENIX AZ 85029-3943

FRANCINE SKLAR  
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NEW YORK NY 10009

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31 PLEASANT ST  
ROWLEY MA 01969-0913

DAVE BENNETT  
329 WALTON ST REAR  
LEMOYNE PA 17043

ROBERT D HARTUNG  
2416 N COUNTY LINE RD  
HUNTERTOWN IN 46748

DICK F WAGNER  
655 NW TERRITORIAL RD  
CANBY OR 97013

JESS WYDER  
17 ACADEMY ST  
FISHKILL NY 12524-1301

GREGORY M NEWKIRK  
6321 KNIGHT AVE  
LONG BEACH CA 90805-3840

BASIL WENTWORTH  
1413 ELLISTON DR  
BLOOMINGTON IN 47401

WARREN JACKSON  
11141 EDGEMERE TER  
ROSCOE IL 61073

ROBERT SHADE  
3210 NORTH BROAD ST  
PHILADELPHIA PA 19140

ROBERT ZAMBONI  
114 CAMP D'AVION  
POINTE-CLAIRE QUEBEC  
CANADA H9R 5S7

BILL ALLEN  
7121 WISHING WELL DRIVE  
AUSTIN TX 78745

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ROUTE 1 BOX 1497  
TRAFFORD AL 35172

HUGH W SCRIVEN  
235 E OXFORD ST  
CHULA VISTA CA 91911

JOHN J IMPELLIZZERI  
45294 UNIVERSAL CT  
UTICA MI 48317



ROBERT W WILLIAMS  
2209 CLEARWATER  
BLOOMINGTON IL 61704

EDWARD J SNOW  
2136 CHURCHILL DOWNS CIRCLE  
ORLANDO FL 32825

LOUIS EISEN  
3284 ANCHOR CIRCLE  
OCEANSIDE CA 92056

MIKE STEPHENS  
312 NEWTON AVE  
OAKLAND CA 94606-1320

BYRON DEFRIES  
BOX 516  
BONDUEL WI 54107

ARS WIDRD  
c/o HARRY E MILLER  
16 WEST ST - PO BOX 62  
BERLIN MA 01503

KEN CRACK  
RD1 DICK STATION  
IRWIN PA 15642

JACK DOHANY  
390 RUTHERFORD  
REDWOOD CITY CA 94061

ZX-APPEAL  
c/o ROD HUMPHREYS  
10984 COLLINGS PLACE  
DELTA B.C. CANADA V4C 7E6

CLARKAMAS COMPUTER APPLIED  
TRAINING SOCIETY  
c/o ROD GOWAN  
1419 1/2 7TH ST  
OREGON CITY OR 97045

CAPITAL AREA TIMEX/SINCLAIR  
c/o TIM SWENSON  
PO BOX 11017  
TAKOMA PARK MD 20913

GREATER CLEVELAND SINCLAIR  
USERS GROUP  
c/o JON KACZOR  
4568 WILLIAMSTON AVE  
BROOKLYN OH 44144

ZXir QLive Alive! Newsletter  
c/o DON LAMBERT  
1301 KIBLINGER PL  
AUBURN IN 46706-3010

CHICAGO AREA TIMEX USERS GROUP  
c/o BOB SWOGER  
613 PARKSIDE CIRCLE  
STREAMWOOD IL 60107-1647

RMG ENTERPRISES  
c/o ROD GOWAN  
1419 1/2 7TH ST  
OREGON CITY OR 97045

ZX REPAIR  
c/o DAN ELLIOTT  
RT 1 BOX 117  
CABOOL MO 65689

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**GROUPS, IT'S TIME  
TO VOTE!**

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As all you groups know, it is T/SNUGs purpose to serve you, to tie the Groups together. Don promised to give you four newsletters per year and keep all the T/S user groups and venders aware that we are ALIVE out here. We sent to all user groups this newsletter wether or not they supported this effort. Do you all agree?

We feel that the known venders should get this newsletter and its AD space free, do you all agree?

We have shown support for our LAST remaining SINCLAIR magazine UPDATE! by giving them first choice of articles we have received first when we felt they were of superior nature, we put UPDATE! first before our needs. I trust you all agree to this one?

We have been blessed by the generosity of our supporters in such a way that we will reduce the re-up fee needed to get along. We wish that more user groups would support the effort and hope that the user groups will use the material they find here to keep the newsletters going at home. Also that the user groups would contact any of the lone supporters listed here and try to tie them into the local user groups, believe me, they need your support.

**ZXir QLive Alive!**  
**Renewal Time**  
**\$10.00 for ALL!**